

R.M.U. USE ONLY
PROBLEM STATEMENT NO:
DATE OF RECEIPT:



STAGE I RESEARCH PROBLEM STATEMENT

- I. **PROBLEM TITLE (required):** The effects of carcass composting on chronic wasting disease.

- II. **PROBLEM STATEMENT (required):** Determine if the end-product of composted roadkill deer could potentially spread chronic wasting disease (CWD), if the composted animals were themselves infected.

Currently, MDT is composting roadkill at 9 sites around the state. We are unable to re-use the composted material as a vegetation enhancement on our roadsides because the State Dept of Agriculture and Fish, Wildlife and Parks are afraid that the practice could spread CWD (which has not yet been documented in MT).

- III. **RESEARCH PROPOSED (required):** Proposed research would involve composting animals infected with CWD and then seeing if the material can infect uninfected animals (I believe mice may be involved).

- IV. **IT COMPONENT (required):** Identify if the project includes an IT component (purchasing of IT hardware, development of databases, acquisition of existing applications, etc) or not. If so, describe IT component in as much detail as possible.

- V. **URGENCY AND EXPECTED BENEFITS (required):** This research needs to be started soon – many states and Canadian provinces are experimenting with animal composting. One state is currently allowed by their local agencies to re-use composted roadkill as a vegetative enhancement, but not in areas where CWD is known to exist.

In addition to benefitting agencies wanting to re-use roadkill compost, the results of this research will have far-reaching benefits by definitively determining if composting infected animals is a viable and inexpensive option for waste reduction and re-use. In addition to applying this research to CWD, the research will benefit the study of other transmissible spongiform encephalopathies like Bovine spongiform encephalopathy.

I have already been in contact with Cornell University's Waste Management Institute (who assisted NY DOT in their roadkill composting guidelines, and there are interested parties in Alberta Canada.

- VI. **IMPLEMENTATION PLAN (required):** At the start, a synopsis of where the research is headed on this subject is needed. This proposal is based on my knowledge of the state of research as of last fall. If it is then determined that this research is NOT being implemented by another group, then we should move toward a multi-agency pooled fund study to raise the needed funds to implement this project. Because of the wide-scale benefits, the pooled group should be quite large. Potential agencies include state and provincial transportation agencies, federal and Canadian departments of agriculture/livestock, Environmental Protection, Fish and Wildlife, and university research facilities.

Deer known to be infected with CWD would need to be composted. Uninfected animals (perhaps mice) would then be exposed to the material and studied to see if the disease was transmitted. It is my understanding that there is no definitive test for CWD – you must examine the brains of infected animals to see if they have the disease.

VII. SUBMITTED BY: (required)

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Note: Submitter may attach continuation sheets if necessary.